

Atty. Dkt. No. IMMUS1120 (039316-0301)  
formerly P-IU-3446

#### REMARKS

Claims 1-10 are pending in this application. The specification has been amended to identify government support. No new matter is introduced by this amendment.

#### RESTRICTION REQUIREMENT

The restriction of the claims into ten groups as set forth in the Office Action mailed March 22, 2002 is respectfully traversed.

Restriction is appropriate if two or more independent and distinct inventions are claimed in one application. 35 U.S.C. §121. The Patent Office interprets section 121 of the patent statute to allow restriction between two or more inventions only if they are able to support separate patents and they are either independent or distinct. MPEP § 803. The examiner is required to provide reasons and/or examples to support restriction. *Id.* It is also Patent Office procedure that even if inventions are determined to be independent or distinct, restriction should not be made if examination can be performed without a "serious burden" on the examiner. *Id.*

It is respectfully submitted that the Examiner's reasoning for restricting many of the groups falls far short of the "serious burden" to search requirement. Searching sequences can only reasonably be done by computer assistance, and in view of the power of computer search programs, there can be no serious burden to search related sequences such as those that differ in minor and predictable ways (e.g., DNA and RNA). Likewise, with the aid of computer searching, there can be no serious burden to search for a protein and its encoding DNA.

Applicants respectfully submit that no serious burden exists to search the claims of Groups I-IV, VI and VII. These claims all relate in some way to the HTS1 tumor suppressor molecule, newly discovered by the inventors. For example, group VII (claim 7), drawn to a substantially pure polypeptide encoded by SEQ ID NO:6, is the HTS1 tumor suppressor protein. Group IV (claim 4), drawn to a substantially pure nucleic acid molecule encoding SEQ ID NO:6 (HTS-1), is readily searched by reverse translating the

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HTS1 amino acid sequence (SEQ ID NO:6). Group III (claim 3), drawn to a substantially pure tumor suppressor nucleic acid which is SEQ ID NO:5, is the human cDNA sequence that encodes HTS1. Group III, therefore, is drawn to a sequence that is a subset of the sequences that are claimed within Group IV. Group II (claim 2), drawn to a substantially pure tumor suppressor nucleic acid which is SEQ ID NO:18, is DNA that represents a small segment SEQ ID NO:5 (the cDNA encoding HTS1). Thus, a search for SEQ ID NO:5 (Group III) will necessarily encompass Group II (SEQ ID NO: 18). Lastly, Group I, drawn to a substantially pure tumor suppressor nucleic acid which is SEQ ID NO: 2, is an mRNA sequence contained within the mRNA encoding HTS1 that is targeted by a specific hairpin ribozyme. Thus, Group I covers mRNA that is intimately related to mRNA encoded based on SEQ ID NO:5 (Group III).

Thus, in view of the above, it is readily apparent that there is a substantial relationship between Groups I-IV, VI and VII, and that rationale search strategies exist that will uncover all relevant art without resulting in a "serious burden" on the searcher. Thus, Applicants respectfully request that Groups I-IV, VI and VII be combined and that claims 1-4, 6 and 7 be examined together in this application. Alternatively, Applicants respectfully request that Groups III, IV and VII be combined and that claims 3, 4 and 7 be examined together in this application. As a further alternative, Applicants respectfully request that Groups III, and IV be combined and that claims 3 and 4 be examined together. As already noted, SEQ ID NO:5 recited in claim 3 is a subset of the sequences claimed in claim 4.

In order to be fully responsive to the Restriction Requirement, Applicant hereby elects Group III, claim 3 for examination.

Applicant believes that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge the fee for the extension of time and any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no

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NO. 8558 P. 9

Atty. Dkt. No. IMMUS1120 (039316-0301)  
formerly P-IU-3446

proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this transmittal, or to credit any overpayment, to Deposit Account No. 50-0872.

Respectfully submitted,

Date: May 13, 2002

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